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JUL 16 1964

CURRENT SERIAL RECORDS

WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
IDAHO

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE,
and
IDAHO STATE RECLAMATION ENGINEER

Data included in this report were obtained by the agency named above in cooperation with the Comptroller of Water Rights of British Columbia, and Federal, State and private organizations listed on the last page of this report.

AS OF
JUNE 1, 1964

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Water Supply Outlook Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from advance estimates of the streamflow.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, up to 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

Streamflow forecasts are obtained by a comparison of total or maximum snow accumulation, as measured by snow water equivalent, to the subsequent spring and summer or snowmelt season runoff over a period of years. The snow water equivalent measured in selected snow courses provides most of the index to the streamflow forecast for the following season. More accurate forecasts are usually obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast procedure. Early season forecasts assume average climatic conditions through the snowmelt season.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions. Soil Conservation Service Reports may be secured from Water Supply Forecasting Unit, Soil Conservation Service, P.O. Box 2807, Portland, Oregon 97208.

PUBLISHED BY SOIL CONSERVATION SERVICE

<u>REPORTS</u>	<u>ISSUED</u>	<u>LOCATION</u>	<u>COOPERATING WITH</u>
RIVER BASINS			
WESTERN UNITED STATES	MONTHLY (FEB.-MAY)	PORTLAND, OREGON	ALL COOPERATORS
BASIC DATA SUMMARY	OCTOBER 1	PORTLAND, OREGON	ALL COOPERATORS
STATES			
ALASKA	MONTHLY (MAR.-MAY)	PALMER, ALASKA	ALASKA S.C.D.
ARIZONA	SEMI-MONTHLY (JAN.15 - APR.1)	PHOENIX, ARIZONA	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
COLORADO AND NEW MEXICO	MONTHLY (FEB.-MAY)	FORT COLLINS, COLORADO	COLO. STATE UNIVERSITY COLO. STATE ENGINEER N. MEX. STATE ENGINEER
IDAHO	MONTHLY (JAN.-JUNE)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
MONTANA	MONTHLY (JAN.-JUNE)	BOZEMAN, MONTANA	MONT. AGR. EXP. STATION
NEVADA	MONTHLY (JAN.-MAY)	RENO, NEVADA	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES
OREGON	MONTHLY (JAN.-JUNE)	PORTLAND, OREGON	OREG. STATE UNIVERSITY OREGON STATE ENGINEER
UTAH	MONTHLY (JAN.-JUNE)	SALT LAKE CITY, UTAH	UTAH STATE ENGINEER
WASHINGTON	MONTHLY (FEB.-JUNE)	SPOKANE, WASHINGTON	WN. STATE DEPT. OF CONSERVATION
WYOMING	MONTHLY (FEB.-JUNE)	CASPER, WYOMING	WYOMING STATE ENGINEER

PUBLISHED BY OTHER AGENCIES

<u>REPORTS</u>	<u>ISSUED</u>	<u>AGENCY</u>
BRITISH COLUMBIA	MONTHLY (FEB.-JUNE)	WATER RESOURCES SERVICE, DEPT. OF LANDS, FOREST AND WATER RESOURCES, PARLIAMENT BLDG., VICTORIA, B.C., CANADA
CALIFORNIA	MONTHLY (FEB.-MAY)	CALIF. DEPT. OF WATER RESOURCES, P.O. BOX 388, SACRAMENTO, CALIF.

WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
IDAHO

Report prepared by

MORLAN W. NELSON Snow Survey Supervisor

and

J. ALDEN WILSON Asst. Snow Survey Supervisor

SOIL CONSERVATION SERVICE
SNOW SURVEY SECTION
BOX 1247, BOISE, IDAHO

Issued by

LEE T. MORGAN
STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
BOISE, IDAHO

CARL E. TAPPAN
STATE RECLAMATION ENGINEER
DEPARTMENT OF RECLAMATION
BOISE, IDAHO

WATER SUPPLY OUTLOOK for IDAHO



JUNE 1, 1964 SNOW SURVEYS AND SUPPLEMENTAL MEASUREMENTS

Snow surveys made near the first of June indicate a long steady snow-melt has taken place for the 1964 season. Precipitation has been spotted, but in general has not changed the water supply outlook. Forecasts, as made on April first and May first, are expected to be close to the actual flows for the coming irrigation season.

On those courses with a long period of record on June first, such as Bogus Basin and Moores Creek Summit, the water contents are close to average. However, on most snow courses, the period of record is too short to make comparisons.

The supplemental measurements carried in this report are to complete the files of those using this data.

SNOW

DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE ^b

JUNE 1, 1964 MEASUREMENTS

Atlanta Summit (A)	15F4	7500	6/4	18	9.0	8.6	--
Big Creek Summit	15E2	6608	5/28	40	18.9	5.5	--
Bogus Basin	16F2	6120	6/1	7	3.2	0.0	--
Coolwater Mountain	15C7	6200	5/29	55	29.5	0.0	--
Crater Meadows	15C9	6100	5/29	74	48.4	--	--
Elk Butte	16C15	5550	5/29	52	28.0	--	--
Forty-nine Meadows	15B3	5000	5/29	21	10.4	--	--
Galena Summit	14F12	8795	5/28	33	14.7	12.4	--
Goat Lake	14C9	6600	5/29	87	48.2	--	--
Granite Peak	15B13	6000	5/29	79	42.0	--	--
Hemlock Butte	15C6	5500	5/29	104	57.6	12.1	--
Lookout Pass	15B2	5250	5/28	57	28.4	--	--
Lost Lake	15B14	6000	5/29	120	69.0	--	--
Medicine Ridge	15B4	6150	5/29	79	43.6	--	--
Moore's Creek Summit	15F1	6100	6/1	18	8.8	0.0	--
Orogrande Mountain	15D4	7800	5/29	92	46.6	31.8	--
Shanghai Summit	15C4	4600	5/29	31	17.0	--	--

SUPPLEMENTAL MEASUREMENTSNOVEMBER 15, 1963

Atlanta Summit (A)	15F4	7500	11/14	21	5.7	--	--
Pierce Ranger Station	15C5	3171	11/15	0	0.0	--	--

DECEMBER 1, 1963

Bad Bear	15F2	5500	12/3	8	1.6	--	--
Bogus Basin	16F2	6120	12/3	19	4.3	0.0	--
Boulder Creek	16D1	5500	12/3	18	4.5	--	--
Crumarine Creek	16C6	3500	11/30	0	0.0	T	--
East Twin	16C3	4000	11/30	T	T	T	--
Howard Creek	16C5	3500	11/30	0	0.0	T	--
Howell Canyon	13G1	8000	12/3	16	4.2	--	--
Moore's Creek Summit	15F1	6100	12/3	27	6.6	0.0	--
Moscow Mountain	16C2	4800	11/30	9	2.1	0.6	--
Pierce Ranger Station	15C5	3171	11/29	0	0.0	--	--
South Mountain	16G1	6340	11/29	9	2.0	--	--
West Twin	16C4	4200	11/30	0	0.0	T	--

DECEMBER 15, 1963

Bogus Basin	16F2	6120	12/13	19	3.9	0.0	--
Bogus Basin Road	16F4	5360	12/13	8	1.9	--	--
Pierce Ranger Station	15C5	3171	12/16	13	3.6	--	--
Red Fish Lake	14E2	6600	12/10	11	1.5	--	--

(b) 1943-57, 15 year period. # Not located directly on this drainage. * Estimated 1943-57, 15 year Average.
 (A) Aerial observation: Water content estimated.

APPENDIX

SNOW

DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE ^b

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 (A) Aerial observation: Water content estimated.

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			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE ^b

JANUARY 1, 1964

Lost Wood Divide (A)	14F3	8750	1/8	34	8.2	--	--
----------------------	------	------	-----	----	-----	----	----

JANUARY 15, 1964

Above Greer	16C11	1240	1/16	T	T	0.2	--
Atlanta Summit (A)	15F4	7500	1/14	53	14.5	8.6	--
Bad Bear	15F2	5500	1/15	29	6.6	0.4	--
Bogus Basin	16F2	6120	1/16	40	10.1	3.0	--
Bogus Basin Road	16F4	5360	1/16	22	6.3	0.2	--
Fourth of July Summit	16B3	3100	1/15	26	5.6	1.0	--
Greer Summit	16C13	3000	1/16	7	1.6	0.2	--
Midway	16C12	2200	1/16	T	T	0.3	--
Moore's Creek Summit	15F1	6100	1/15	50	14.2	4.2	--
Mount Baldy	14F9	9000	1/15	31	8.2	5.0	--
Trinity Mountain (A)	15F5	7400	1/14	54	14.8	9.2	--

FEBRUARY 15, 1964

Atlanta Summit (A)	15F4	7500	2/14	75	22.6	16.4	--
Bad Bear	15F2	5500	2/18	43	11.8	--	--
Bogus Basin	16F2	6120	2/19	54	17.1	7.1	--
Bogus Basin Road	16F4	5360	2/12	30	9.1	T	--
Fourth of July Summit	16B3	3100	2/14	40	11.9	0.5	--
Galena	14F1	7500	2/13	48	13.8	10.0	--
Galena Summit	14F12	8795	2/13	59	16.8	12.6	--
Moore's Creek Summit	15F1	6100	2/18	75	22.6	9.8	--
Mount Baldy	14F9	9000	2/14	48	13.9	9.8	--
Pierce Ranger Station	15C5	3171	2/14	43	11.3	4.2	--
Trinity Mountain (A)	15F5	7400	2/14	81	24.4	18.8	--

MARCH 15, 1964

Atlanta Summit (A)	15F4	7500	3/15	107	35.2	19.7	--
Bad Bear	15F2	5500	3/17	56	17.1	--	--
Bogus Basin	16F2	6120	3/13	71	20.9	8.5	--
Bogus Basin Road	16F4	5360	3/13	39	11.1	--	--
Fourth of July Summit	16B3	3100	3/13	61	17.1	0.7	--
Galena	14F1	7500	3/16	68	18.4	12.3	--
Galena Summit	14F12	8795	3/16	78	22.2	15.6	--
Moore's Creek Summit	15F1	6100	3/17	94	30.9	12.0	--
Mount Baldy	14F9	9000	3/13	64	16.4	11.6	--
Pierce Ranger Station	15C5	3171	3/17	55	17.4	4.6	--
Prairie	15F6	5600	3/15	40	7.7	T	--
Sherwin	16C1	3200	3/14	72	22.2	5.4	--
Trinity Mountain (A)	15F5	7400	3/15	108	35.5	24.3	--

(b) 1943-57, 15 year period. # Not located directly on this drainage.

* Estimated 1943-57, 15 year Average.

(A) Aerial observation: Water content estimated.

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DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE ^b

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 (A) Aerial observation: Water content estimated.

SNOW

DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE ^b

APRIL 15, 1964

Atlanta Summit (A)	15F4	7500	4/15	82	34.6	27.1	--
Bad Bear	15F2	5500	4/16	33	13.4	--	--
Big Springs	11E9	6500	4/15	47	19.8	--	--
Bogus Basin	16F2	6120	4/16	57	22.3	11.0	--
Bogus Basin Road	16F4	5360	4/16	0	0.0	--	--
Couch Summit (A)	14F10	6950	4/15	38	16.0	12.2	--
Fourth of July Summit	16B3	3100	4/15	20	8.9	0.0	--
Galena	14F1	7500	4/16	44	15.8	15.2	--
Galena Summit	14F12	8795	4/16	68	25.0	21.7	--
Island Park	11E10	6315	4/15	34	13.1	--	--
Lookout	15B2	5250	4/15	102	41.2	--	--
Moore's Creek Summit	15F1	6100	4/16	73	30.8	14.0	--
Mount Baldy	14F9	9000	4/15	60	20.1	16.0	--
Pierce Ranger Station	15C5	3171	4/15	32	13.1	T	--
Prairie	15F6	5600	4/15	0	0.0	0.0	--
Trinity Mountain (A)	15F5	7400	4/15	83	35.0	31.3	--
Valley View	11E8	6500	4/15	45	18.1	--	--

MAY 1, 1964

Lolo Pass	14C5	5230	4/27	90	40.8	19.6	--
Powell Ranger Station	14C6	4230	4/27	16	8.2	--	--

MAY 15, 1964

Atlanta Summit (A)	15F4	7500	5/16	69	33.4	27.2	--
Big Springs	11E9	6500	5/15	25	11.4	--	--
Bogus Basin	16F2	6120	5/16	38	18.7	9.4	--
Coolwater Mountain	15C7	6200	5/14	99	47.4	--	--
Fish Lake Airstrip	15C2	5000	5/14	105	54.4	--	--
Fourth of July Summit	16B3	3100	5/14	0	0.0	--	--
Galena	14F1	7500	5/15	16	7.2	10.1	--
Galena Summit	14F12	8795	5/15	54	23.8	23.8	--
Island Park	11E10	6315	5/15	7	2.7	--	--
Kellogg Peak (A)	16B5	5560	5/15	66	29.6	--	--
Lookout	15B2	5250	5/14	89	40.0	--	--
Moore's Creek Summit	15F1	6100	5/15	50	24.2	12.6	--
Mosquito Ridge (A)	16A4	5110	5/15	84	37.7	--	--
Orogrande Mountain	15D4	7800	5/14	123	53.2	--	--
Roland Summit (A)	15B5	5200	5/15	60	26.9	--	--
Sunset (A)	15B9	5600	5/15	108	48.5	--	--
Trinity Mountain (A)	15F5	7400	5/16	86	41.6	33.5	--
Valley View	11E8	6500	5/15	21	8.8	--	--

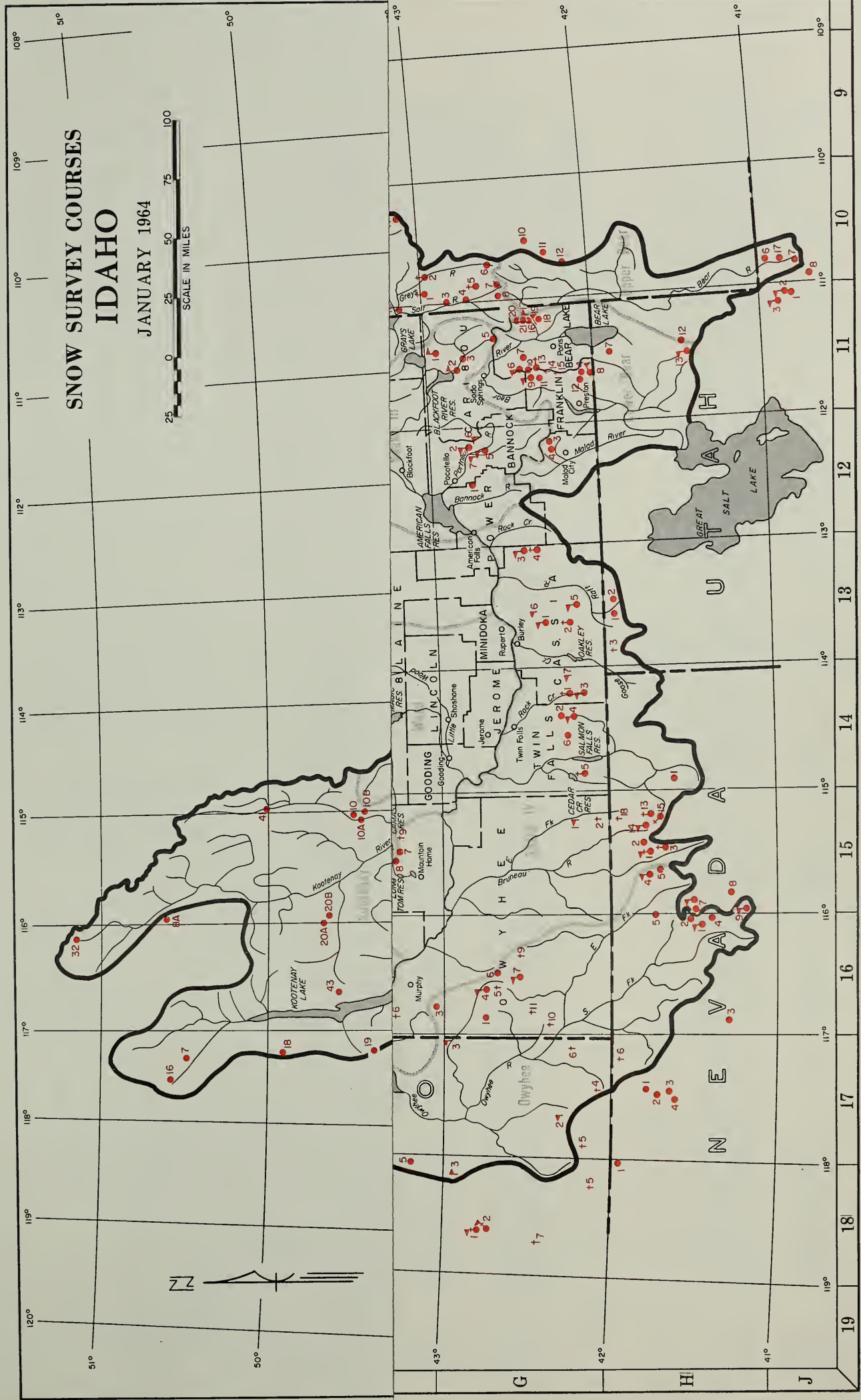
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 (A) Aerial observation: Water content estimated.

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NAME	NO.	ELEVATION				LAST YEAR	AVERAGE ^b

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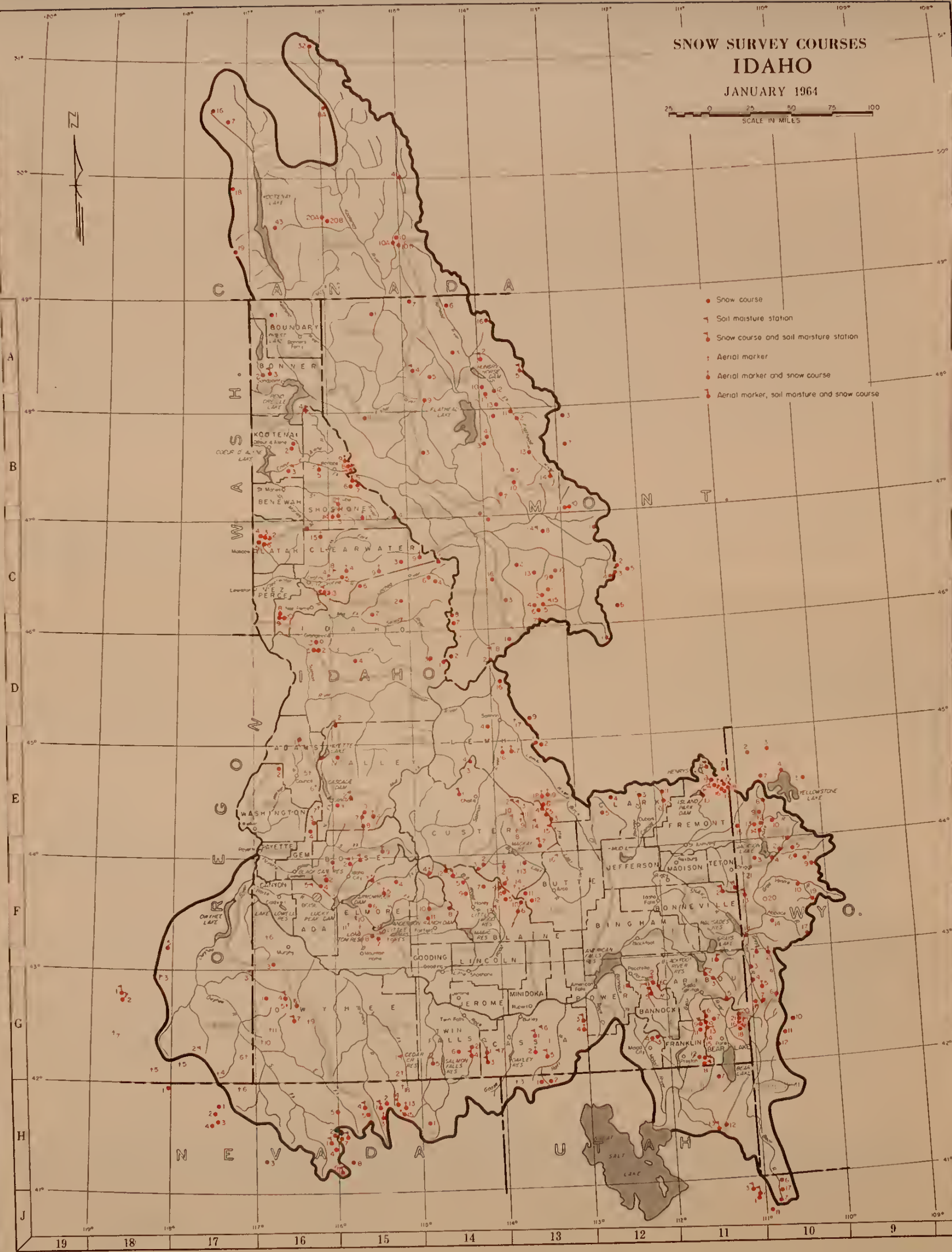
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 (A) Aerial observation: Water content estimated.

SNOW SURVEY COURSES IDAHO

JANUARY 1964

25 0 25 50 75 100
SCALE IN MILES

- Snow course
- ▲ Soil moisture station
- ◆ Snow course and soil moisture station
- ✦ Aerial marker
- ✧ Aerial marker and snow course
- ✨ Aerial marker, soil moisture and snow course



Index to IDAHO SNOW COURSES

Agencies Assisting with Snow Surveys , etc.

GOVERNMENT AGENCIES

Canada:

Department of Lands, Forests, and
Water Resources, British Columbia
Department of Resources and Development,
Water Resources Division

States:

Idaho State Reclamation Engineer
State of Idaho Department of Fish and Game
University of Idaho
Idaho State University
Montana Agricultural Experiment Station
Montana State Water Conservation Board
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and Corps of
State Watermasters
Utah Cooperative Snow Surveys
Wyoming Cooperative Snow Surveys

Federal:

U. S. Army Engineers

U. S. Department of Agriculture
Forest Service
Agricultural Research Service

U. S. Department of Commerce
Weather Bureau

U. S. Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Indian Service
National Park Service
Bureau of Land Management

PUBLIC UTILITIES

The Montana Power Company
Washington Water Power Company
Idaho Power Company
Utah Power and Light Company

ORGANIZED PUBLIC AGENCIES

Big Lost River Irrigation District
Boise Project Board of Control
Little Wood River Irrigation District
Jordan Valley Irrigation District
Salmon Falls Creek Irrigation Company
Twin Falls Soil Conservation District
Twin Lakes Irrigation Company
Big Wood Irrigation Company
Owyhee Project - North & South Board of Control

PRIVATE CORPORATIONS

Amalgamated Sugar Company

*Other organizations and individuals furnish valuable information for
snow survey reports. Their cooperation is gratefully acknowledged.*

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
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water supply for irrigation,
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supply, hydro-electric power
generation, navigation,
mining and industry

*"The Conservation of Water begins
with the Snow Survey"*

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